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EXAMINER
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ART UNIT	PAPER NUMBER
2192	

DATE MAILED: 03/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/921,298	KUTTER, PHILIPP W.
	Examiner	Art Unit	
	Andre R. Fowlkes	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>27 December 2005</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-21</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-21</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

12/27/05 has been entered.

2.   Claims 1-21 are pending. Claims 1, 6, 7, 9 and 11 are amended.

Claim Rejections - 35 USC § 112

3.   The rejection to claim 6 under 35 U.S.C. 112, second paragraph, is withdrawn, in

view of applicant's amendment.

Claim Objections

4.   Claim 6 is objected to because of the following informalities:

- "module*>" should be --module*)>-- at claim 6 line 5,

- "constant>" should be --constant)>-- at claim 6 line 23.

Appropriate correction is required.

5.   Claims 7 and 11 are labeled as currently amended in the claims and in the

arguments; however, the text of claims 7 and 11 has not been amended or changed.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the
> United States before the invention thereof by the applicant for patent, or on an international application
> by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this
> title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7.   Claims 1-21 are rejected under 35 U.S.C. 102(e) as being anticipated by De Boor

et al. (De Boor) U.S. Patent No. 6,173,316.

As per claim 1, De Boor discloses a **method for the direct execution of an**

XML-document in a data processing system, (col. 3:58-67, "providing a wireless

communication device with an MMI (i.e. browser) that is based on a markup language

(i.e. XML). A markup language is a computer programming language that allows the

content of a page or a screen display to be defined by the inclusion of predefined

symbols in the content itself indicating the logical components of the content,

instructions for the layout of the content on the page or screen, or other data which can

be interpreted by some automatic system responsible for displaying, manipulating or

modifying the content", and col. 9:45-51, "The present invention is not limited to HTML,

but also operates with, and may extend any other markup language, such as SGML, or

XML"), **comprising:**

- defining the local behavior and process for each element of the XML-

document (col. 3:59-66, "A markup language (i.e. XML) is a computer programming

language that allows the content of a page or a screen display (i.e. local behavior and

process) to be defined by the inclusion of predefined symbols in the content itself

indicating the logical components of the content, instructions for the layout of the

content on the page or screen"),

- integrating executable instructions with at least one XML-document or a

document type definition (DTD) (col. 3:58-60, "providing a wireless communication

device with an MMI (i.e. browser) that is based on a markup language (i.e. XML which

includes DTDs, the legal building blocks of an XML document)", and this process is the

integration of the executable instructions with the XML document),

- storing intermediate states of the execution process in a memory of the

data processing system by dynamically creating and redefining attributes of

elements of the XML document (col. 62:9-10, "(intermediate states of the process are stored and) replacing the tag with the second markup language page to form a combined markup language page (i.e. the elements are redefined)"),

- where the intermediate states define intermediate states of the execution of the executable document (col. 62:9-10, "(intermediate states of the execution of the executable document are stored and) replacing the tag with the second markup language page to form a combined markup language page").

As per claim 2, the rejection of claim 1 is incorporated, and further De Boor discloses that:

- integrating executable instructions by defining for each XML-element definition and its instances an action made up of executable actions, and actions which are references to either the action defined for one of the components of the element or to an action defined for any other element of the XML document (col. 3:58-67, "providing a wireless communication device with an MMI that is based on a markup language (i.e. executable instructions integrated with XML documents). A markup language is a computer programming language that allows the content of a page or a screen display to be defined by the inclusion of predefined symbols in the content itself indicating the logical components of the content, instructions for the layout of the content on the page or screen, or other data which can be interpreted by some automatic system responsible for displaying, manipulating or modifying the content"),

    - executing an XML-document by executing the action defined for the root of the XML document (col. 3:59-66, "A markup language (i.e. xml document) is a computer programming language that allows the content of a page or a screen display to be defined by the inclusion of predefined symbols in the content itself indicating the logical components of the content, instructions for the layout of the content on the page or screen, or other data which can be interpreted by some automatic system responsible for displaying, manipulating or modifying the content").

    As per claim 3, the rejection of claim 1 is incorporated, and further De Boor discloses that **defining a composition of the action for at least one XML-element definition or instance by graphical flow charts** (col. 7:36-38, "a flowchart of the operation of the HTMLp content handler in processing a string input associated with a user interface gadget", and col. 9:49-51, "The present invention is not limited to HTML, but also operates with, and may extend any other markup language, such as SGML, or XML").

    As per claim 4, the rejection of claim 1 is incorporated, and further De Boor discloses **defining the composition of the action for at least one XML-element definition or instance in textual form** (col. 3:59-66, "A markup language (i.e. xml document) is a computer programming language that allows the content of a page or a screen display to be defined by the inclusion of predefined symbols in the content itself indicating the logical components of the content, instruction for the layout of the content

on the page or screen (i.e. composition of the action), or other data which can be

interpreted by some automatic system responsible for displaying, manipulating or

modifying the content").

As per claim 5, the rejection of claim 1 is incorporated, and further De Boor

discloses:

- **representing system states** in terms of n-dimensional data cubes (col. 23:46-

47, "determine the initial state of a form in a page", and one can store system states

well known formats such as in data cubes or n-dimensional arrays),

- **providing an open interface by making the** state information **readable and**

writeable for other programming and database systems (col. 23:42-47, "There are a

number of extensions of HTML in the present invention that allow pages to be designed

using a standard HTML editor, using arguments passed (through an open interface) by

C code to complete form entry fields, or specifying data to be fetched on the fly from the

device to determine the initial state of a form in a page"),

- **making data structures and functionalities of other programming and**

database systems accessible using executable instructions (col. 23:42-47, "There

are a number of extensions of HTML in the present invention that allow pages to be

designed using a standard HTML editor, using arguments passed (using executable

instructions) by C code to complete form entry fields, or specifying data to be fetched on

the fly from the device to determine the initial state of a form in a page").

As per claim 6, the rejection of claim 1 is incorporated, and further De Boor

discloses **modules stored in the memory of the data processing system that define**

a process for each element, where the modules are valid with respect to a specific

DTD, which is also stored in a memory of the data processing system (col. 3:59-

66, "A markup language (i.e. XML) is a computer programming language that allows the

content of a page or a screen display (i.e. local behavior and process) to be defined by

the inclusion of predefined symbols in the content itself indicating the logical

components of the content, instructions for the layout of the content on the page or

screen", and validating modules with respect DTDs is a well known practice used with

XML).

As per claim 7, the rejection of any one of the preceding claims is incorporated,

and further De Boor discloses a **system for use with the method according to one of**

the preceding claims, (col. 59:35-68:66, "The markup language based man-machine

interface", as disclosed in the claims), **comprising:**

    - a server providing services to at least one client by executing at least

parts of a XML-document according to a XML-robot specification sent from the

client to the server or a server providing services to at least one client by sending

a XML-robot specification and a XML-document to the client, such that said

service is provided by executing of at least part of the sent document on the

client according to the sent XML-robot specification (col. 9:49-51, "providing a

wireless communication device with an MMI (i.e. browser) that is based on a markup

language (i.e. XML). A markup language is a computer programming language that

allows the content of a page or a screen display to be defined by the inclusion of

predefined symbols in the content itself indicating the logical components of the content,

instructions for the layout of the content on the page or screen, or other data which can

be interpreted by some automatic system responsible for displaying, manipulating or

modifying the content", and (below fig 14 and multi part forms) col. 30:14-22, "the data

from each form (i.e. executable xml document) to be transmitted to the server as part of

the URL that fetches the next form (i.e. executable xml document). The server then

takes the data passed in the URL and returns a page that must be generated on-the-fly

with the passed-in data from the previous forms included as "hidden" type input

elements in the form in the returned page").

As per claims 8-10, this is an apparatus version of the claimed method discussed

above, in claim 7, wherein all claimed limitations have also been addressed and/or cited

as set forth above. For example, see De Boor, col. 9:49-51 and col. 30:14-22.

As per claim 11, De Boor discloses **an apparatus for the direct execution of

XML documents, comprising: means for graphical display of XML-robot

specifications within an advanced visual integrated development environment,**

(col. 3:58-67, "providing a wireless communication device with an MMI (i.e. XML-robot

specifications within an advanced visual integrated development environment) that is

based on a markup language (i.e. XML). A markup language is a computer

programming language that allows the content of a page or a screen display to be

defined by the inclusion of predefined symbols in the content itself indicating the logical

components of the content, instructions for the layout of the content on the page or

screen, or other data which can be interpreted by some automatic system responsible

for displaying, manipulating or modifying the content", and col. 9:45-51, "The present

invention is not limited to HTML, but also operates with, and may extend any other

markup language, such as SGML, or XML"), **and means for generating animations of**

the execution process (col. 3:58-67, "providing a wireless communication device with

an MMI that is based on a markup language (i.e. XML). A markup language is a

computer programming language that allows the content of a page or a <u>screen display</u>

to be defined by the inclusion of predefined symbols in the content itself indicating the

logical components of the content, instructions for the layout of the content on the page

or screen, or other data which can be interpreted by some automatic system

responsible for displaying, manipulating or modifying the content", and col. 9:45-51,

"The present invention is not limited to HTML, but also operates with, and may extend

any other markup language, such as SGML, or XML").

As per claim 12, De Boor discloses a **method for the direct execution of XML**

documents, (col. 3:58-67, "providing a wireless communication device with an MMI (i.e.

browser) that is based on a markup language (i.e. XML). A markup language is a

computer programming language that allows the content of a page or a screen display

to be defined by the inclusion of predefined symbols in the content itself indicating the

logical components of the content, instructions for the layout of the content on the page

or screen, or other data which can be interpreted by some automatic system

responsible for displaying, manipulating or modifying the content", and col. 9:45-51,

"The present invention is not limited to HTML, but also operates with, and may extend

any other markup language, such as SGML, or XML", and col. 3:58-60, "providing a

wireless communication device with an MMI (i.e. browser) that is based on a markup

language (i.e. XML)", and this process is the integration of the executable instructions

with the XML document), **comprising:**

   - providing an execution specification including

>**a DTD** (col. 3:58-60, "providing a wireless communication device with an

MMI (i.e. browser) that is based on a markup language (i.e. XML which includes

DTDs, the legal building blocks of an XML document)"),

> **graphical flow charts** (col. 7:36-38, "a flowchart of the operation of the

HTMLp content handler in processing a string input associated with a user

interface gadget", and col. 9:49-51, "The present invention is not limited to HTML,

but also operates with, and may extend any other markup language, such as

SGML, or XML"),

> **and transition rules** (col. 3:59-66, "A markup language (i.e. XML) is a

computer programming language that allows the content of a page or a screen

display (i.e. local behavior, process and transition rules) to be defined by the

inclusion of predefined symbols in the content itself indicating the logical

components of the content, instructions for the layout of the content on the page or screen"),

- **providing an XML document instance including an XML document** (col. 3:58-60, "providing a wireless communication device with an MMI (i.e. browser) that is based on a markup language (i.e. XML which includes DTDs, the legal building blocks of an XML document)"),

- **using the DTD to validate the XML document** (col. 3:58-60, "providing a wireless communication device with an MMI (i.e. browser) that is based on a markup language (i.e. XML which includes DTDs, the legal building blocks of an XML document)"),

- **constructing an attributed structure tree** (col. 35:66-36:1, "This tag allows for a user interface page to provide a graphical instruction sheet for existing DTMF-based command trees (i.e. attributed structure tree)"),

- **decorating the attributed structure tree with the graphical flow charts to create a global flow chart** (col. 35:66-36:1, "This tag allows for a user interface page to provide a graphical instruction sheet for existing DTMF-based command trees (i.e. attributed structure tree)"),

- **and executing the global flow chart according to the transition rules to directly execute the XML document** (col. 3:59-66, "A markup language (i.e. XML) is a computer programming language that allows the content of a page or a screen display (i.e. local behavior, process and transition rules) to be defined by the inclusion of predefined symbols in the content itself indicating the logical

components of the content, instructions for the layout of the content on the page

or screen", and col. 7:36-38, "a flowchart of the operation of the HTMLp content

handler in processing a string input associated with a user interface gadget", and

col. 9:49-51, "The present invention is not limited to HTML, but also operates

with, and may extend any other markup language, such as SGML, or XML").

As per claim 13, this is a computer readable medium/product version of the

claimed method discussed above, in claim 12, wherein all claimed limitations have also

been addressed and/or cited as set forth above. Additionally, such a product is deemed

to be inherent in the system, otherwise, it would be inoperative.

As per claim 14, De Boor discloses a **computer-readable medium having**

computer-readable instructions for performing a method for the direct execution

of XML-documents, (col. 3:58-67, "providing a wireless communication device with an

MMI (i.e. browser) that is based on a markup language (i.e. XML). A markup language

is a computer programming language that allows the content of a page or a screen

display to be defined by the inclusion of predefined symbols in the content itself

indicating the logical components of the content, instructions for the layout of the

content on the page or screen, or other data which can be interpreted by some

automatic system responsible for displaying, manipulating or modifying the content",

and col. 9:45-51, "The present invention is not limited to HTML, but also operates with,

and may extend any other markup language, such as SGML, or XML", and col. 3:58-60,

"providing a wireless communication device with an MMI (i.e. browser) that is based on

a markup language (i.e. XML)", and this process is the integration of the executable

instructions with the XML document), **the method comprising:**

- defining the local behavior and process for each element of a XML-

document (col. 3:58-60, "providing a wireless communication device with an MMI (i.e.

browser) that is based on a markup language (i.e. XML which includes DTDs, the legal

building blocks of an XML document)"),

- integrating executable instructions with a document type definition (DTD),

an XML-document (col. 3:58-67, "providing a wireless communication device with an

MMI (i.e. browser) that is based on a markup language (i.e. XML). A markup language

is a computer programming language that allows the content of a page or a screen

display to be defined by the inclusion of predefined symbols in the content itself

indicating the logical components of the content, instructions for the layout of the

content on the page or screen, or other data which can be interpreted by some

automatic system responsible for displaying, manipulating or modifying the content",

and col. 9:45-51, "The present invention is not limited to HTML, but also operates with,

and may extend any other markup language, such as SGML, or XML", and col. 3:58-60,

"providing a wireless communication device with an MMI (i.e. browser) that is based on

a markup language (i.e. XML)", and this process is the integration of the executable

instructions with the XML document),

- and storing intermediate states by dynamically creating and redefining

element attributes (col. 62:9-10, "(intermediate states of the execution of the

executable document are stored and) replacing the tag with the second markup

language page to form a combined markup language page").

As per claim 15, De Boor discloses **a system for the execution of an XML**

document comprising an interpreter generator having an input and an output, the

input operative to receive an XML specification, the interpreter generator

operative to produce at the output an interpreter, (col. 3:58-67, "providing a wireless

communication device with an MMI (i.e. an interpreter generator) that is based on a

markup language (i.e. XML). A markup language is a computer programming language

that allows the content of a page or a screen display to be defined by the inclusion of

predefined symbols in the content itself indicating the logical components of the content,

instructions for the layout of the content on the page or screen, or other data which can

be interpreted by some automatic system responsible for displaying, manipulating or

modifying the content", and col. 9:45-51, "The present invention is not limited to HTML,

but also operates with, and may extend any other markup language, such as SGML, or

XML", and col. 3:58-60, "providing a wireless communication device with an MMI (i.e.

browser) that is based on a markup language (i.e. XML)", and this process is the

integration of the executable instructions with the XML document), **the interpreter**

having an input and an output, the input operative to receive an XML document,

the interpreter operative to validate the XML document with respect to a general

DTD and to execute the XML document (col. 3:58-60, "providing a wireless

communication device with an MMI that is based on a markup language (i.e. XML which

includes DTDs, the legal building blocks of an XML document)").

As per claim 16, De Boor discloses a **system for the execution of an XML**

document comprising: a compiler generator having an input and an output, the

input operative to receive an XML specification, the compiler generator operative

to produce at the output a compiler, (col. 3:58-67, "providing a wireless

communication device with an MMI (i.e. compiler) that is based on a markup language

(i.e. XML). A markup language is a computer programming language that allows the

content of a page or a screen display to be defined by the inclusion of predefined

symbols in the content itself indicating the logical components of the content,

instructions for the layout of the content on the page or screen, or other data which can

be interpreted by some automatic system responsible for displaying, manipulating or

modifying the content", and col. 9:45-51, "The present invention is not limited to HTML,

but also operates with, and may extend any other markup language, such as SGML, or

XML", and col. 3:58-60, "providing a wireless communication device with an MMI (i.e.

browser) that is based on a markup language (i.e. XML)", and this process is the

integration of the executable instructions with the XML document), **the compiler**

having an input and an output, the input operative to receive a XML document

valid with respect to a general DTD, the compiler operative to produce an

executable document at the output (col. 3:58-60, "providing a wireless

communication device with an MMI that is based on a markup language (i.e. XML which

includes DTDs, the legal building blocks of an XML document)").

As per claim 17, De Boor discloses a **system for the execution of an XML**

document (col. 3:58-67, "providing a wireless communication device with an MMI that

is based on a markup language (i.e. XML). A markup language is a computer

programming language that allows the content of a page or a screen display to be

defined by the inclusion of predefined symbols in the content itself indicating the logical

components of the content, instructions for the layout of the content on the page or

screen, or other data which can be interpreted by some automatic system responsible

for displaying, manipulating or modifying the content", and col. 9:45-51, "The present

invention is not limited to HTML, but also operates with, and may extend any other

markup language, such as SGML, or XML", and col. 3:58-60, "providing a wireless

communication device with an MMI (i.e. browser) that is based on a markup language

(i.e. XML)", and this process is the integration of the executable instructions with the

XML document), **comprising: a first interpreter having an input, the input**

operative to receive a XML specification (col. 3:58-67, "providing a wireless

communication device with an MMI (i.e. an interpreter) that is based on a markup

language (i.e. XML). A markup language is a computer programming language that

allows the content of a page or a screen display to be defined by the inclusion of

predefined symbols in the content itself indicating the logical components of the content,

instructions for the layout of the content on the page or screen, or other data which can

be interpreted by some automatic system responsible for displaying, manipulating or

modifying the content", and col. 9:45-51, "The present invention is not limited to HTML,

but also operates with, and may extend any other markup language, such as SGML, or

XML", and col. 3:58-60, "providing a wireless communication device with an MMI (i.e.

browser) that is based on a markup language (i.e. XML)", and this process is the

integration of the executable instructions with the XML document, and col. 3:58-60,

"providing a wireless communication device with an MMI that is based on a markup

language (i.e. XML which includes DTDs, the legal building blocks of an XML

document)"), **a second interpreter coupled to the first interpreter, the second**

interpreter having an input, the input operative to receive a XML document valid

with respect to the general DTD, the first interpreter starting a process in the

second interpreter, the second interpreter operative to execute the XML

document (col. 3:58-67, "providing a wireless communication device with an MMI (i.e. a

second interpreter) that is based on a markup language (i.e. XML). A markup language

is a computer programming language that allows the content of a page or a screen

display to be defined by the inclusion of predefined symbols in the content itself

indicating the logical components of the content, instructions for the layout of the

content on the page or screen, or other data which can be interpreted by some

automatic system (i.e. the first interpreter) responsible for displaying, manipulating or

modifying the content", and col. 9:45-51, "The present invention is not limited to HTML,

but also operates with, and may extend any other markup language, such as SGML, or

XML", and col. 3:58-60, "providing a wireless communication device with an MMI (i.e.

browser) that is based on a markup language (i.e. XML)", and this process is the

integration of the executable instructions with the XML document, and col. 3:58-60,

"providing a wireless communication device with an MMI that is based on a markup

language (i.e. XML which includes DTDs, the legal building blocks of an XML

document)").

As per claim 18, De Boor discloses **a system for the execution of an XML**

document (col. 3:58-67, "providing a wireless communication device with an MMI (i.e.

browser) that is based on a markup language (i.e. XML). A markup language is a

computer programming language that allows the content of a page or a screen display

to be defined by the inclusion of predefined symbols in the content itself indicating the

logical components of the content, instructions for the layout of the content on the page

or screen, or other data which can be interpreted by some automatic system

responsible for displaying, manipulating or modifying the content", and col. 9:45-51,

"The present invention is not limited to HTML, but also operates with, and may extend

any other markup language, such as SGML, or XML", and col. 3:58-60, "providing a

wireless communication device with an MMI (i.e. browser) that is based on a markup

language (i.e. XML)", and this process is the integration of the executable instructions

with the XML document), **comprising: an interpreter having an input, the input**

operative to receive a XML specification, the interpreter operative to interpret the

XML specification (col. 3:58-67, "providing a wireless communication device with an

MMI (i.e. an interpreter to interpret the XML specification) that is based on a markup

language (i.e. XML). A markup language is a computer programming language that

allows the content of a page or a screen display to be defined by the inclusion of

predefined symbols in the content itself indicating the logical components of the content,

instructions for the layout of the content on the page or screen, or other data which can

be interpreted by some automatic system responsible for displaying, manipulating or

modifying the content", and col. 9:45-51, "The present invention is not limited to HTML,

but also operates with, and may extend any other markup language, such as SGML, or

XML", and col. 3:58-60, "providing a wireless communication device with an MMI that is

based on a markup language (i.e. XML)", and this process is the integration of the

executable instructions with the XML document, and col. 3:58-60, "providing a wireless

communication device with an MMI that is based on a markup language (i.e. XML which

includes DTDs, the legal building blocks of an XML document)"), **a compiler coupled**

to the interpreter, the compiler having an input and an output, the input operative

to receive an XML document, the interpreter operative to start the compiler; the

compiler operative to generate an executable XML document on the output (col.

3:58-67, "providing a wireless communication device with an MMI (i.e. compiler) that is

based on a markup language (i.e. XML). A markup language is a computer

programming language that allows the content of a page or a screen display to be

defined by the inclusion of predefined symbols in the content itself indicating the logical

components of the content, instructions for the layout of the content on the page or

screen, or other data which can be interpreted by some automatic system responsible

for displaying, manipulating or modifying the content", and col. 9:45-51, "The present

invention is not limited to HTML, but also operates with, and may extend any other

markup language, such as SGML, or XML", and col. 3:58-60, "providing a wireless

communication device with an MMI (i.e. browser) that is based on a markup language

(i.e. XML)", and this process is the integration of the executable instructions with the

XML document, and col. 3:58-60, "providing a wireless communication device with an

MMI that is based on a markup language (i.e. XML which includes DTDs, the legal

building blocks of an XML document)").

As per claim 19, De Boor discloses **a method for the execution of an XML**

document , (col. 3:58-67, "providing a wireless communication device with an MMI that

is based on a markup language (i.e. XML). A markup language is a computer

programming language that allows the content of a page or a screen display to be

defined by the inclusion of predefined symbols in the content itself indicating the logical

components of the content, instructions for the layout of the content on the page or

screen, or other data which can be interpreted by some automatic system responsible

for displaying, manipulating or modifying the content", and col. 9:45-51, "The present

invention is not limited to HTML, but also operates with, and may extend any other

markup language, such as SGML, or XML", and col. 3:58-60, "providing a wireless

communication device with an MMI that is based on a markup language (i.e. XML)", and

this process is the integration of the executable instructions with the XML document,

and col. 3:58-60, "providing a wireless communication device with an MMI that is based

on a markup language (i.e. XML which includes DTDs, the legal building blocks of an

XML document)") **comprising:**

(a) setting a global variable cur to a root reference (col. 3:58-67, "providing a

wireless communication device with an MMI (i.e. browser) that is based on a markup

language (i.e. XML). A markup language is a computer programming language that

allows the content of a page or a screen display to be defined by the inclusion of

predefined symbols in the content itself indicating the logical components of the content,

instructions for the layout of the content on the page or screen, or other data which can

be interpreted by some automatic system responsible for displaying, manipulating or

modifying the content (i.e. the global variables, state and derived elements, attribute

origins, cur, actions, state and variables)", and col. 9:45-51, "The present invention is

not limited to HTML, but also operates with, and may extend any other markup

language, such as SGML, or XML, and col. 3:59-66, "A markup language (i.e. XML) is a

computer programming language that allows the content of a page or a screen display

(i.e. local behavior and process) to be defined by the inclusion of predefined symbols in

the content itself indicating the logical components of the content, instructions for the

layout of the content on the page or screen"),

(b) setting the value of a global variable mod to refer to a module element

describing the execution behavior of the root (col. 3:58-67, "providing a wireless

communication device with an MMI (i.e. browser) that is based on a markup language

(i.e. XML). A markup language is a computer programming language that allows the

content of a page or a screen display to be defined by the inclusion of predefined

symbols in the content itself indicating the logical components of the content,

instructions for the layout of the content on the page or screen, or other data which can

be interpreted by some automatic system responsible for displaying, manipulating or

modifying the content (i.e. the global variables, state and derived elements, attribute

origins, cur, actions, state and variables)", and col. 9:45-51, "The present invention is

not limited to HTML, but also operates with, and may extend any other markup

language, such as SGML, or XML, and col. 3:59-66, "A markup language (i.e. XML) is a

computer programming language that allows the content of a page or a screen display

(i.e. local behavior and process) to be defined by the inclusion of predefined symbols in

the content itself indicating the logical components of the content, instructions for the

layout of the content on the page or screen"),

(c) copying all state and derived elements from the module mod into the

element cur, setting the attribute origin of all state and derived elements to cur

(col. 3:58-67, "providing a wireless communication device with an MMI (i.e. browser)

that is based on a markup language (i.e. XML). A markup language is a computer

programming language that allows the content of a page or a screen display to be

defined by the inclusion of predefined symbols in the content itself indicating the logical

components of the content, instructions for the layout of the content on the page or

screen, or other data which can be interpreted by some automatic system responsible

for displaying, manipulating or modifying the content (i.e. the global variables, state and

derived elements, attribute origins, cur, actions, state and variables)", and col. 9:45-51,

"The present invention is not limited to HTML, but also operates with, and may extend

any other markup language, such as SGML, or XML, and col. 3:59-66, "A markup

language (i.e. XML) is a computer programming language that allows the content of a

page or a screen display (i.e. local behavior and process) to be defined by the inclusion

of predefined symbols in the content itself indicating the logical components of the

content, instructions for the layout of the content on the page or screen"),

(d) copying the state and derived elements of the sub-modules of module

mod into the corresponding components of element cur (col. 3:58-67, "providing a

wireless communication device with an MMI (i.e. browser) that is based on a markup

language (i.e. XML). A markup language is a computer programming language that

allows the content of a page or a screen display to be defined by the inclusion of

predefined symbols in the content itself indicating the logical components of the content,

instructions for the layout of the content on the page or screen, or other data which can

be interpreted by some automatic system responsible for displaying, manipulating or

modifying the content (i.e. the global variables, state and derived elements, attribute

origins, cur, actions, state and variables)", and col. 9:45-51, "The present invention is

not limited to HTML, but also operates with, and may extend any other markup

language, such as SGML, or XML, and col. 3:59-66, "A markup language (i.e. XML) is a

computer programming language that allows the content of a page or a screen display

(i.e. local behavior and process) to be defined by the inclusion of predefined symbols in

the content itself indicating the logical components of the content, instructions for the

layout of the content on the page or screen"),

**(e) update cur to cur.traverse; and (f) if cur is undefined then executing the
XML document else returning to (a)** (col. 3:58-67, "providing a wireless

communication device with an MMI (i.e. browser) that is based on a markup language

(i.e. XML). A markup language is a computer programming language that allows the

content of a page or a screen display to be defined by the inclusion of predefined

symbols in the content itself indicating the logical components of the content,

instructions for the layout of the content on the page or screen, or other data which can

be interpreted by some automatic system responsible for displaying, manipulating or

modifying the content (i.e. the global variables, state and derived elements, attribute

origins, cur, actions, state and variables)", and col. 9:45-51, "The present invention is

not limited to HTML, but also operates with, and may extend any other markup

language, such as SGML, or XML, and col. 3:59-66, "A markup language (i.e. XML) is a

computer programming language that allows the content of a page or a screen display

(i.e. local behavior and process) to be defined by the inclusion of predefined symbols in

the content itself indicating the logical components of the content, instructions for the

layout of the content on the page or screen").

As per claim 20, the rejection of claim 19 is incorporated and further, De Boor

discloses that **executing the XML document,** (col. 3:58-67, "providing a wireless

communication device with an MMI that is based on a markup language (i.e. XML). A

markup language is a computer programming language that allows the content of a

page or a screen display to be defined by the inclusion of predefined symbols in the

content itself indicating the logical components of the content, instructions for the layout

of the content on the page or screen, or other data which can be interpreted by some

automatic system responsible for displaying, manipulating or modifying the content",

and col. 9:45-51, "The present invention is not limited to HTML, but also operates with,

and may extend any other markup language, such as SGML, or XML", and col. 3:58-60,

"providing a wireless communication device with an MMI that is based on a markup

language (i.e. XML)", and this process is the integration of the executable instructions

with the XML document, and col. 3:58-60, "providing a wireless communication device

with an MMI that is based on a markup language (i.e. XML which includes DTDs, the

legal building blocks of an XML document)"), **comprises:**

(i) setting cur to the XML document's root (col. 3:58-67, "providing a wireless

communication device with an MMI (i.e. browser) that is based on a markup language

(i.e. XML). A markup language is a computer programming language that allows the

content of a page or a screen display to be defined by the inclusion of predefined

symbols in the content itself indicating the logical components of the content,

instructions for the layout of the content on the page or screen, or other data which can

be interpreted by some automatic system responsible for displaying, manipulating or

modifying the content (i.e. the global variables, state and derived elements, attribute

origins, cur, actions, state and variables)", and col. 9:45-51, "The present invention is

not limited to HTML, but also operates with, and may extend any other markup

language, such as SGML, or XML, and col. 3:59-66, "A markup language (i.e. XML) is a

computer programming language that allows the content of a page or a screen display

(i.e. local behavior and process) to be defined by the inclusion of predefined symbols in

the content itself indicating the logical components of the content, instructions for the

layout of the content on the page or screen"),

    (ii) setting a global variable curstate to initial (col. 3:58-67, "providing a

wireless communication device with an MMI (i.e. browser) that is based on a markup

language (i.e. XML). A markup language is a computer programming language that

allows the content of a page or a screen display to be defined by the inclusion of

predefined symbols in the content itself indicating the logical components of the content,

instructions for the layout of the content on the page or screen, or other data which can

be interpreted by some automatic system responsible for displaying, manipulating or

modifying the content (i.e. the global variables, state and derived elements, attribute

origins, cur, actions, state and variables)", and col. 9:45-51, "The present invention is

not limited to HTML, but also operates with, and may extend any other markup

language, such as SGML, or XML, and col. 3:59-66, "A markup language (i.e. XML) is a

computer programming language that allows the content of a page or a screen display

(i.e. local behavior and process) to be defined by the inclusion of predefined symbols in

the content itself indicating the logical components of the content, instructions for the

layout of the content on the page or screen"),

    (iii) iterating a variable state over all state elements of cur (col. 3:58-67,

"providing a wireless communication device with an MMI (i.e. browser) that is based on

a markup language (i.e. XML). A markup language is a computer programming

language that allows the content of a page or a screen display to be defined by the

inclusion of predefined symbols in the content itself indicating the logical components of

the content, instructions for the layout of the content on the page or screen, or other

data which can be interpreted by some automatic system responsible for displaying,

manipulating or modifying the content (i.e. the global variables, state and derived

elements, attribute origins, cur, actions, state and variables)", and col. 9:45-51, "The

present invention is not limited to HTML, but also operates with, and may extend any

other markup language, such as SGML, or XML, and col. 3:59-66, "A markup language

(i.e. XML) is a computer programming language that allows the content of a page or a

screen display (i.e. local behavior and process) to be defined by the inclusion of

predefined symbols in the content itself indicating the logical components of the content,

instructions for the layout of the content on the page or screen"),

> **(iv) if a name attribute of state matches curstate then setting cur to the**
>
> **value of attribute origin of state else terminate execution** (col. 3:58-67, "providing a

wireless communication device with an MMI (i.e. browser) that is based on a markup

language (i.e. XML). A markup language is a computer programming language that

allows the content of a page or a screen display to be defined by the inclusion of

predefined symbols in the content itself indicating the logical components of the content,

instructions for the layout of the content on the page or screen, or other data which can

be interpreted by some automatic system responsible for displaying, manipulating or

modifying the content (i.e. the global variables, state and derived elements, attribute

origins, cur, actions, state and variables)", and col. 9:45-51, "The present invention is

not limited to HTML, but also operates with, and may extend any other markup

language, such as SGML, or XML, and col. 3:59-66, "A markup language (i.e. XML) is a computer programming language that allows the content of a page or a screen display (i.e. local behavior and process) to be defined by the inclusion of predefined symbols in the content itself indicating the logical components of the content, instructions for the layout of the content on the page or screen"),

(v) iterating over all actions inside state (col. 3:58-67, "providing a wireless communication device with an MMI (i.e. browser) that is based on a markup language (i.e. XML). A markup language is a computer programming language that allows the content of a page or a screen display to be defined by the inclusion of predefined symbols in the content itself indicating the logical components of the content, instructions for the layout of the content on the page or screen, or other data which can be interpreted by some automatic system responsible for displaying, manipulating or modifying the content (i.e. the global variables, state and derived elements, attribute origins, cur, actions, state and variables)", and col. 9:45-51, "The present invention is not limited to HTML, but also operates with, and may extend any other markup language, such as SGML, or XML, and col. 3:59-66, "A markup language (i.e. XML) is a computer programming language that allows the content of a page or a screen display (i.e. local behavior and process) to be defined by the inclusion of predefined symbols in the content itself indicating the logical components of the content, instructions for the layout of the content on the page or screen"),

(vi) resetting cur to its original value; and (vii) returning to (iii) (col. 3:58-67, "providing a wireless communication device with an MMI (i.e. browser) that is based on

a markup language (i.e. XML). A markup language is a computer programming

language that allows the content of a page or a screen display to be defined by the

inclusion of predefined symbols in the content itself indicating the logical components of

the content, instructions for the layout of the content on the page or screen, or other

data which can be interpreted by some automatic system responsible for displaying,

manipulating or modifying the content (i.e. the global variables, state and derived

elements, attribute origins, cur, actions, state and variables)", and col. 9:45-51, "The

present invention is not limited to HTML, but also operates with, and may extend any

other markup language, such as SGML, or XML, and col. 3:59-66, "A markup language

(i.e. XML) is a computer programming language that allows the content of a page or a

screen display (i.e. local behavior and process) to be defined by the inclusion of

predefined symbols in the content itself indicating the logical components of the content,

instructions for the layout of the content on the page or screen").

As per claim 21, De Boor discloses **a method for the direct execution of XML-**

documents, (col. 3:58-67, "providing a wireless communication device with an MMI

that is based on a markup language (i.e. XML). A markup language is a computer

programming language that allows the content of a page or a screen display to be

defined by the inclusion of predefined symbols in the content itself indicating the logical

components of the content, instructions for the layout of the content on the page or

screen, or other data which can be interpreted by some automatic system responsible

for displaying, manipulating or modifying the content", and col. 9:45-51, "The present

invention is not limited to HTML, but also operates with, and may extend any other

markup language, such as SGML, or XML", and col. 3:58-60, "providing a wireless

communication device with an MMI that is based on a markup language (i.e. XML)", and

this process is the integration of the executable instructions with the XML document,

and col. 3:58-60, "providing a wireless communication device with an MMI that is based

on a markup language (i.e. XML which includes DTDs, the legal building blocks of an

XML document)"), **the method comprising:**

- defining the local behavior and process for each element of a XML-

document (col. 3:58-67, "providing a wireless communication device with an MMI that

is based on a markup language (i.e. XML). A markup language is a computer

programming language that allows the content of a page or a screen display to be

defined by the inclusion of predefined symbols in the content itself indicating the logical

components of the content, <u>instructions for the layout of the content on the page or</u>

<u>screen, or other data which can be interpreted by some automatic system</u> responsible

for displaying, manipulating or modifying the content"),

- integrating executable instructions with at least on XML document or a

document type definition (DTD) (col. 3:58-60, "providing a wireless communication

device with an MMI that is based on a markup language (i.e. XML)", and this process is

the integration of the executable instructions with the XML document),

- and storing intermediate states of the execution process in a memory of

the data processing system by dynamically creating and redefining element

attributes (col. 62:9-10, "(intermediate states of the execution of the executable

document are stored and) replacing the tag with the second markup language page to

form a combined markup language page").

Response to Arguments

9.   Applicants arguments have been considered but they are not persuasive.

In the remarks, the applicant has argued substantially that:

1)   The examiner has not provided a prima facie case for the rejection of

independent claims 11, 12, 13, 14, 15, 16, 17, 18, 19 and 21. The examiner's

contention that these claims are versions of various dependent claims of claim 1 does

not clearly set out how De Boor discloses the recited claim elements, at p. 10:8-11:24.

Examiner's response:

1)   Applicant's arguments with respect to claims 11, 12, 13, 14, 15, 16, 17, 18, 19

and 21 have been considered but are moot in view of the detailed restatement of the

ground(s) of rejection.

In the remarks, the applicant has argued substantially that:

2)   De Boor completely fails to disclose applicant's claimed invention, at p. 11:16-17.

Examiner's response:

2)   In this case, applicant's arguments fail to comply with 37 CFR 1.111(b) because

they amount to a general allegation that the claims define a patentable invention without

specifically pointing out how the language of the claims patentably distinguishes them

from the references.

Applicant should submit an argument under the heading "Remarks" pointing out

disagreements with the examiner's contentions. Applicant must also discuss the

references applied against the claims, <u>explaining how the claims avoid the references or</u>

<u>distinguish from them</u>.

In the remarks, the applicant has argued substantially that:

3)   The fact that the De Boor patent contains a flowchart is not sufficient to anticipate

claim 3, at p. 11:17-21.

Examiner's response:

3)   As previously stated in the Final Rejection of 6/17/05, the De Boor patent

discloses defining a combination of the action for an HTML definition or instance by

graphical flow chart (De Boor, 7:36-38). De Boor continues to state that the present

invention and techniques may be extended to any other markup language, such as XML

(De Boor, 9:49-51). Therefore, the De Boor reference teaches the limitations of claims

3.

Conclusion

10.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre R. Fowlkes whose telephone number is (571) 272-3697. The examiner can normally be reached on Monday - Friday, 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571)272-3695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ARF

TUAN DAM
SUPERVISORY PATENT EXAMINER